Multiple FEMA Grant Programs Ease Flood Worries

Full Mitigation Best Practice Story

Coos County, New Hampshire

Coos County, NH - The Town of Lancaster has a long history of ice jams and seasonal flooding. Flood-related evacuations are not uncommon. Many of the brooks and streams are prone to flash flooding. Indian Brook meandered from east to west thorough the Town of Lancaster, New Hampshire, passing through several swampy areas on its way to the Connecticut River. When it appeared in downtown Lancaster, the brook flowed through a series of undersized culverts at Depot Street. Due to a cycle of mountain snow melt, spring seasonal flooding and summer thunderstorms repetitive flooding was inevitable at this location.

The Depot Street culverts, twin undersized corrugated metal culverts under the road, and an undersized stone box culvert under an adjacent unused railroad bed, both sized to withstand only a “six to ten year storm,” had been the cause of significant flooding to the road and a nearby mobile home park. To add to the problem the two culverts were improperly aligned with the stream channel and a town water main ran at right angles beneath the stone culvert.

Problems and potential problems at this location included stormwater overtopping and washing out the road, loss of residential structures and contents in the mobile home park, road closure and rebuilding, and potential interruption of water service to 20 homes.

The solution to these problems involved assistance from two Federal Emergency Management Agency (FEMA) grant programs: Pre-Disaster Mitigation Grant Program and Hazard Mitigation Grant Program.

A concrete 12 by 5 foot bottomless box culvert with wing walls was installed under Depot Street with funds from FEMA’s Pre-Disaster Mitigation (PDM) Grant Program, which provides funding to states and local governments for implementing cost-effective hazard mitigation planning and projects before disasters occur. The PDM Program is a nationally competitive program with a goal to reduce the overall risk to people and property from future disasters, while also reducing reliance on funding from disaster declarations. The box culvert was completed in the fall of 2008 at a cost of $137,380 funded by FEMA’s PDM Grant Program.

With funds from FEMA’s Hazard Mitigation Grant Program (HMGP), a 10 by 3 by 40 foot bottomless aluminum culvert was placed under the railroad bed. The HMGP provides grants to states, Indian tribes, and local governments for long-term hazard mitigation projects following a major disaster declaration.

For historical accuracy under FEMA’s Historic Preservation Program, the aluminum culvert was refaced with the original stone from the previous culvert. The aluminum culvert under the rail bed had to be completed before the box culvert under the road could be replaced. The brook was also returned to its original channel at this time. The cost of this project funded by the HMGP program was $52,290.

Under both programs, the Federal government pays up to 75 percent of the project cost. Either the state or the applicant (such as local government) covers the remaining 25 percent.

Although untested as of February 2009, mitigation measures on Depot Street should give the town one less location to worry about.

Activity/Project Location

Geographical Area:	**Single County in a State**
FEMA Region:	**Region I**
State:	**New Hampshire**
County:	**Coos County**
City/Community:	**Lancaster**

Key Activity/Project Information

Sector:	**Public**
Hazard Type:	**Flooding**
Activity/Project Type:	**Flood Control**
Structure Type:	**Concrete, Reinforced**
Activity/Project Start Date:	**08/2006**
Activity/Project End Date:	**Ongoing**
Funding Source:	**Hazard Mitigation Grant Program (HMGP)**
Funding Recipient:	**Local Government**
Funding Recipient Name:	**Town of Lancaster**
Application/Project Number:	**DR-1643-NH-3**

Activity/Project Economic Analysis

Cost:	**$189,670.00 (Actual)**

Activity/Project Disaster Information

Mitigation Resulted From Federal Disaster?	**Yes**
Federal Disaster #:	**1643 , 05/25/2006**
Federal Disaster Year:	**2006**
Value Tested By Disaster?	**No**
Repetitive Loss Property?	**No**

Reference URLs

No URLs were submitted

Main Points

No Main Points were entered.

Concrete and Aluminum Culverts

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